UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER
HA, YVONNE QUY M

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 March 2004</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The amendment filed on 3/1/2004 has been entered. Claims 1-24 are pending

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1-4, 13, 19-21, 24, and 25 are rejected under 35 U.S.C. 102(b) as being

anticipated by Huotari et al. (WO 96/13949).

Referring to claim 1, Huotari discloses a method for providing a packet-switched network

user (figures 2, 6, page 11, 11-22, data services including virtual private network) with a service

via the intelligent network (figure 6, i.e. SCP function), the method comprising the steps of

receiving the network registration of a user in the packet network (page 5, lines 11-17),

establishing a session for routing functionality of packets originating from and terminating at the

user (page 5, lines 25-35, page 6, lines 1-2); characterized by forming for the session a control

record, by which event management is controlled during the session (page 6, lines 3-17) and

which has a functional connection to at least one service control function of an intelligent

network service (page 6, lines 25-28); and defining at least one of the session events as an

intelligent network event to the control record (page 6, lines 29-35; page 7, lines 1-10, trigger

with actual IN service), the encounter of which causes the use of intelligent network control

principles (page 7, lines 1-10).

Referring to claim 2, Huotari discloses all aspects of the claimed invention and further

teaches modelling the session by a state model (page 14, lines 16-35, page 15, lines 1-7).

Referring to claim 3, Huotari discloses all aspects of the claimed invention and further

teaches maintaining information on at least one intelligent network event in subscriber

information (page 11, lines 30-35; page 12, lines 1-12); searching the information from the

register including subscriber information when forming the control record (page 11, lines 30-35;

page 12, lines 1-12); and adding the intelligent network events in the subscriber information as

intelligent network events of the session (page 11, lines 30-35; page 12, lines 1-12 and 33-35,

page 13, lines 1-10).

Referring to claim 4, Huotari discloses all aspects of the claimed invention and further

teaches maintaining at least one intelligent network event in the node serving the user; and

adding the intelligent network events maintained in the node as intelligent network events of the

session (page 12, lines 33-35; page 13, lines 1-9 and 15-20).

Referring to claim 13, Huotari discloses all aspects of the claimed invention and further

teaches defining the allocation of logical and physical connections during the session as an

intelligent network event of the control record (figure 4, reference 8,9 SCP is the logical layer for

IN; page 13, lines 29-34, the actual connection MOC to MTC is the physical connection).

Referring to claim 19, Huotari discloses an application part (AP) to establish and

maintain a session for routing functionality of the packets originating from and terminating at a

user (page 10, lines 11-35; page 13, lines 29-34); characterized in that the application part (AP)

(i.e. SCP) is arranged to form a control record for the session in such a manner that at least one

of the session events is defined in the control record as an intelligent network event (page 11,

lines 23-32; page 13, lines 29-34), the encounter of which causes the use of intelligent network

control principles (page 13, lines 29-34); the node further comprises session management means

(BSM) for detecting the encounter with the intelligent network event (page 15, lines 17-30); the

application part (AP) (i.e. SCP) is arranged to use the intelligent network control principles in

response to the encounter with the intelligent network event (page 15, lines 17-35); and the

connection part (CP) (i.e. CC-call control) is arranged to convey messages between the

intelligent network and the application part (page 15, lines 31-35; page 16, lines 1-7); packet

network node (SGSN, GGSN) (figure 2, i.e. VMSC as serving and GMSC as gateway)

comprising a connection part (CP) (i.e. CC-call control) to transfer packets and set up a

connection to the packet network (page 13, lines 29-34).

Referring to claim 20, the application part (AP) (i.e. SCP) is arranged to obtain the

intelligent network events defined in the subscriber information (page 11, lines 23-32), and the

session management means (BSM) are arranged to detect the encounter with the intelligent

network events (page 15, lines 17-27).

Referring to claim 21, the network node comprises a memory part (MP) (i.e. VLR stored

subscriber profiles), in which at least one intelligent network event is defined (page 15, lines 17-

22, a trigger key as an event); and the session management means (BSM) are arranged to detect

the encounter with an intelligent network event (page 15, lines 20-28).

Referring to claim 24, it is a serving support node of the packet radio network (SGSN)

(i.e. VMSC serving switch; figure 5, page 15, lines 17-30)

Referring to claim 25, it is a gateway support node of the packet radio network (GGSN)

(i.e. GMSC gateway switch; figure 5, page 16, lines 5-17)

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 5-8, 14-18, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Huotari et al. (WO 96/13949) in view of Monrad et al. (US Patent 6,438,122).

Referring to claims 5, 15, and 22, Huotari discloses all aspects of the claimed invention

but failed to teach GPRS attach of the user as an IN event of the control record. However,

Monrad discloses a GPRS system provides packet switched connections through a network

where an LLC layer is established when mobile activated PDP context with a QoS service (col.

4, lines 44-52). At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to combine the teaching of Huotari creating IN services in a packet switch with

Monrad GPRS. Since GPRS is a service provides packet switched connections between end

users and PSTN networks, the teaching of Monrad using IN services to incorporate in the basic

network would make implementation and controlling of services faster and more flexible.

Services could be made independent by moving the service control out from the switching

exchange into a separate functional unit of the IN network. It is well known in the art.

Referring to claims 6, 7, 17, and 23, Huotari discloses all aspects of the claimed invention

but failed to teach defining the PDP context activation/deactivation, modification as intelligent

network events of the control record. However, Monrad discloses the handling of logic links for

a mobile and any SGSN at PDP context activation/deactivation (col. 2, lines 3-5). At the time of

the invention, it would have been obvious to a person of ordinary skill in the art to combine the

teaching of Huotari creating IN services in a packet switch with Monrad GPRS. Since GPRS is a

service provides packet switched connections between end users and PSTN networks, the

teaching of Monrad using IN services to incorporate in the basic network would make

implementation and controlling of services faster and more flexible. Services could be made

independent by moving the service control out from the switching exchange into a separate

functional unit of the IN network. The logic link of the packet protocol could be defined with an

independent set of link variable per service so as to allow independent handling of different

services within the link. It is conventional to have different services on a same logic link for

efficiency.

Referring to claim 8, Huotari discloses all aspects of the claimed invention and further

teaches defining the packet routing as an intelligent network event of the control record (page 14,

lines 10-21).

Referring to claim 14, Huotari discloses all aspects of the claimed invention and further

teaches receiving a certificate message from the intelligent network, which message includes a

public key; and authenticating the user with the public key (page 13, lines 15-28, i.e. trigger key

is unique to each mobile, and allocation of service code for the IN service) but failed to teach

GPRS attach of the user as an IN event of the control record. However, Monrad discloses a

GPRS system provides packet switched connections through a network where an LLC layer is

established when mobile activated PDP context with a QoS service (col. 4, lines 44-52). At the

time of the invention, it would have been obvious to a person of ordinary skill in the art to

combine the teaching of Huotari creating IN services in a packet switch with Monrad GPRS.

Since GPRS is a service provides packet switched connections between end users and PSTN

networks, the teaching of Monrad using IN services to incorporate in the basic network would

make implementation and controlling of services faster and more flexible. Services could be

made independent by moving the service control out from the switching exchange into a separate

functional unit of the IN network. It is well known in the art.

Referring to claim 16, Huotari discloses method for providing a packet-switched network

user with a service via the intelligent network (figures 2, 6, page 11, 11-22, data services

including virtual private network), which control record can be modeled by a state model and

which has a functional connection to at least one service control function of an intelligent

network service (page 15, lines 27-35, page 16, lines 1-4) but failed to teach activating a PDP

context to convey data packets, the event management of the PDP context is controlled, , and by

defining at least one of the PDP context events as an intelligent network event to the control

record, which event causes the use of intelligent network control principles. However, Monrad

discloses the handling of logic links for a mobile and any SGSN at PDP context

activation/deactivation (col. 2, lines 3-5). Monrad also discloses a GPRS system provides packet

switched connections through a network where an LLC layer is established when mobile

activated PDP context with a QoS service (col. 4, lines 44-52). At the time of the invention, it

would have been obvious to a person of ordinary skill in the art to combine the teaching of

Huotari creating IN services in a packet switch with Monrad GPRS. Since GPRS is a service

provides packet switched connections between end users and PSTN networks, the teaching of

Monrad using IN services to incorporate in the basic network would make implementation and

controlling of services faster and more flexible. Services could be made independent by moving

the service control out from the switching exchange into a separate functional unit of the IN

network. The logic link of the packet protocol could be defined with an independent set of link

variable per service so as to allow independent handling of different services within the link. It is

conventional to have different services on a same logic link for efficiency.

Referring to claim 18, Huotari discloses all aspects of the claimed invention and further

teaches defining the allocation of logical and physical connections during the session as an

intelligent network event of the control record (figure 4, reference 8,9 SCP is the logical layer for

IN; page 13, lines 29-34, the actual connection MOC to MTC is the physical connection).

6.   Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huotari et al.

(US Patent 6,044,264) in view Monrad et al. (US Patent 6,438,122) and in further view of Yagel

et al. (US Patent 6,366,657).

Referring to claims 9-10, Huotari and Monrad disclose all aspects of the claimed

invention but failed to teach requesting a report from IN on a relating condition of a criterion,

initializing/maintaining counter, increasing the counter in response to the transferred packet;

checking whether the condition given to the criterion is fulfilled. However, Yagel discloses a

management information base builder toolkit (figure 2) with IN nodes, SCP and a service

management system (including counter) to manage logic execution environment (col. 3, lines 12-

20, lines 35-38). Service commissioning environment, operational support and IN components

are part of the management logic execution (col. 5, lines 1-6). At the time of the invention, it

would have been obvious to a person of ordinary skill in the art to combine the teaching of

Huotari creating IN services in a packet switch with Monrad GPRS and Yagel network

management system including commissioning, operation and IN components monitoring. New

services such as IN and SCE related to deploying a new service, which need support in

monitoring and maintaining. The teaching of Yagel master management system provides access

at various levels of management within the network, which includes managing the network

resources, access, operations of the telecommunication services.

7.   Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huotari

et al. (US Patent 6,044,264) in view Yagel et al. (US Patent 6,366,657) and in further view of

Nakagawa (US Patent 5,583,918).

        Referring to claims 11 and 12, Huotari discloses all aspects of the claimed invention but

failed to teach receiving a charging message from the intelligent network, which message

includes charging criteria; maintaining the counter; initializing said counter; increasing the

counter in response to the transferred packet, and price comparison; And forming a charging

record on the basis of the charging criteria and the value of the counter. However, Yagel

discloses a management information base builder toolkit (figure 2) with IN nodes, SCP and a

service management system (including counter) to manage logic execution environment (col. 3,

lines 12-20, lines 35-38). Service commissioning environment, operational support and IN

components are part of the management logic execution (col. 5, lines 1-6). In addition,

Nakagawa teaches a prepaid platform on service management unit (figure 2, references 32,10,

38, credit line check and balance; col. 3, lines 37-51;col. 6, lines 1-10). At the time of the

invention, it would have been obvious to a person of ordinary skill in the art to combine the

teaching of Huotari creating IN services in a packet switch with Yagel network management

system including commissioning, operation and IN components monitoring. New services such

as IN and SCE related to deploying a new service, which need support in monitoring and

maintaining and Nakagawa prepaid platform on service management unit. The teaching of Yagel

master management system provides access at various levels of management within the network,

which includes managing the network resources, access, operations of the telecommunication

services. Adding the prepaid platform into the network management is well known in the art (i.e.

a system is needed to track of billing and fraud of using prepaid card).

Response to Amendment

8.   Applicant's arguments, see page 9, lines 11, filed on 3/1/2004, with respect to the

rejection(s)of claim(s) 1-25 under 35 USC 102 and 103 have been fully considered and are

persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration,

a new ground(s) of rejection is made in view of Huotari et al. (WO 96/13949), publication date

of 5/9/1996. Since reference Huotari et al. (WO 96/13949) was published over one year from the

applicant filing date, the common ownership should not be matter with the new rejection as

presented.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Yvonne Q. Ha whose telephone number is 703-305-8392. The

examiner can normally be reached on Monday-Friday 7a.m.-4p.m. Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ajit Patel can be reached on 703-308-5347. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YQH

Ajit Patel
Primary Examiner